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World Financial Markets

JPMorgan

1990 issue 2
July 23

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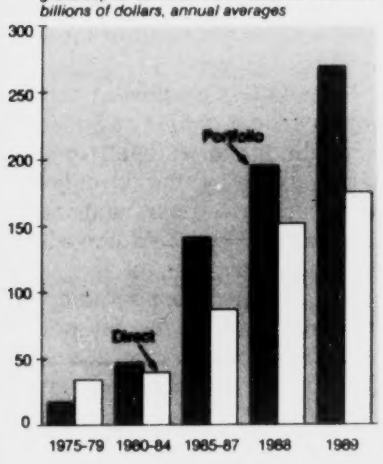
Chart 1

Private international investment

gross capital outflows from industrial countries billions of dollars, annual averages*



*G-10 plus Australia, Spain, and Switzerland
Source: BIS.

*Adam Smith: managing the global capital of nations**

Policymakers have wrestled since the demise of the gold standard in World War I how best to balance reasonably free trade and reasonably free capital flow across national borders. The two freedoms make uneasy bedfellows at the best of times. Even today, their coexistence cannot be taken for granted, but instead must be *earned* by careful international management.

For thirty years following World War II, priority for liberalization went to trade. Few had faith in a liberal regime for private international capital flows. In the 1960s, even the United States instituted selective controls as gold reserves dwindled. Not until January 1974 did capital freedom regain favor. U.S. controls were lifted to allow bank-intermediated recycling of OPEC's huge surpluses. Liberalization gradually spread, aided by floating dollar exchange rates and technological advance, and inspired by investor and borrower interest in freedom of choice and diversification. Crucial too have been Japan's financial maturation and, more recently, the broadened horizons of "1992" and Europe's push toward Economic and Monetary Union (EMU). The upshot has been an explosion of private international capital flows (see Chart 1).

Capital flow freedom has won the hearts and minds of policymakers, contrary to earlier instincts. Despite the misgivings of some academics, this freedom is here to stay for good or ill. The effect on global economic efficiency should be positive, but not under all conditions. In particular private capital flows dominate exchange markets and can hamper economic and trade adjustment through currency misalignment, which in turn heightens pressures for restraint of trade. Worse, the instability of some private capital flows may engender financial "bubbles" or "manias," to use the colorful terms of historians. Latin America's bubble burst eight years ago in a sobering example of how easy financing in the short term can have costly and intractable

*Shortened version of a paper presented by Rimmer de Vries, Managing Director, Morgan Guaranty Trust Company, to the *World Business Forum's* conference "The Wealth of Nations 1990," Edinburgh, June 27-July 1, 1990.

consequences in the long run. Sooner or later, all bubbles burst — but all too often are not seen as bubbles until too late in the day.

What can be done to capture the benefits, and alleviate the risks, posed by free-ranging private capital? The nineteenth-century gold standard offers no model; it actually was harsh on economic growth and financial stability, contrary to rose-tinted memories, and left little room for policy autonomy. The Bretton Woods system protected free trade and provided some policy autonomy but had to be backed by currency market intervention and control of "undesirable" capital flows. The more recent Louvre accord, which stressed monetary management and currency reference zones, has done little for financial stability and has held free trade in jeopardy, especially between Japan and the United States.

For the future, a new approach is needed for an optimal blend of trade and capital freedom. To avoid further drift toward "managed" trade, fundamental policies require rethinking. As the *sine qua non* of financial and currency calm, price stability warrants the highest governmental priority. Many countries, notably those inclined toward union, as in Europe, should opt for pegging their currencies to that of a low-inflation partner, or for outright currency union. By contrast, the more variegated G-3 economies should find discretionary, domestically oriented monetary policy superior, given central bank accountability but independence of political control; G-3 exchange rate flexibility is useful in coping with residual inflation differentials and structural changes born of evolving technology and comparative advantage.

Often more sudden can be changes in global saving and investment trends and consequent current account imbalances. Examples include the oil shocks of the 1970s, the Reagan economic program, and, most recently, the regime shifts in Eastern Europe. Exchange rates respond to abrupt changes in fundamentals. But neither exchange rate management nor monetary policy can do much to influence these fundamentals for the better. Not so, by contrast, fiscal policy.

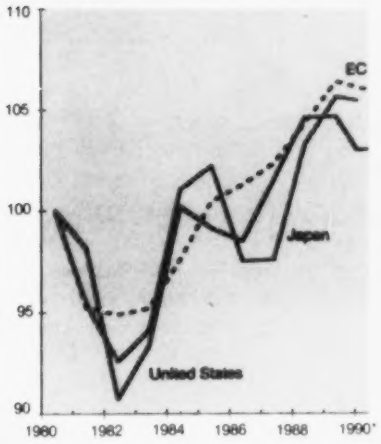
If G-3 consultation is to retain relevance, the focus has to shift from complacency whenever exchange rates can be pronounced "consistent with fundamentals," or from market jawboning and monetary tinkering to try to make them so, to a coherent effort to redress failings in the fundamentals themselves. Dumping this burden on central banks, as has been the custom, is no answer except for enforcing monetary prudence. G-3 exchange rates largely should be left to find their own way. The real need is for longer-term fiscal and structural matters, nationally sensitive though they be, to take over at the head of the G-3 agenda.

Revised G-3 priorities become urgent in light of today's key fact: competition for limited global saving bred by the investment demands of German unification and Eastern Europe's liberation, the implementation of the EC's single market, the upgrading of U.S. industry, the unmet needs of Latin America, Asia, and Africa, plus the eventual restructuring of the Soviet Union and global environmental cleanup. Though not coming into play overnight, the aggregate of these

Chart 2

Capacity utilization in manufacturing

annual averages
1980=100

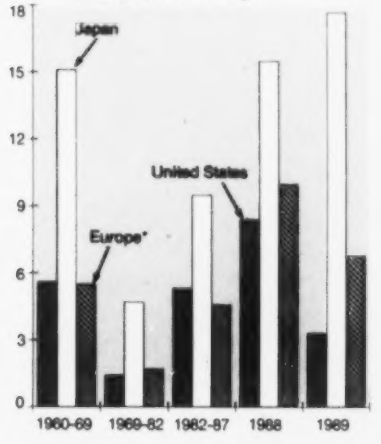


*Latest plot 1990 Q2 except Japan, 1990 Q1

Chart 3

Business investment

real private nonresidential fixed investment
annual average percent change



*Germany, France, Italy, and United Kingdom
Source: BIS

demands could be staggering and could burden capacity in the major economies where, apart from the United States, investment has been vigorous for some time already (see Charts 2 and 3).

The immediate challenge is clear. U.S. commitment to price stability has to be brought into place. In addition, attention to fundamentals rather than symptoms requires that global saving be beefed up. For the United States, this is mainly a matter of steering much of its peace dividend to the federal government's financial bottom line, so that the deficit ceases to bleed off scarce national saving. Some European countries, including uniting Germany, also will need fiscal corrections. Structurally, Europe must yield on agricultural protectionism; otherwise, the "Uruguay round" of multilateral trade negotiations will surely fail. Japan has to deliver on its promises under the Structural Impediments Initiative, retune its monetary/fiscal policy mix, and rethink its capital export objectives to hold trade and investment frictions at bay.

With progress on these counts, a workable marriage of free trade and free capital flow can emerge. The industrial countries would offer markets for Eastern Europe and the third world to develop their comparative advantages and would be positioned to provide the real resources to handle the new investment needs — once the recipients are ready.The form of the input will be as important as the scale. Ten years ago, banks provided a disproportionately high share of financing to Latin America, with little going in as private direct investment. This was unsound. Banks now are likely to stick mainly to trade financing and advisory work. Equity and direct investors are better placed to see that resources work for investors and recipients alike.

All these things will take political courage. The dangers of inaction, however, should be compelling. Japan or Europe could shun the responsibilities implicit in their enlarged global standing. Or U.S. fiscal paralysis could drive up interest rates to the detriment of an already struggling U.S. economy. Such failings would be a formula for regional-block thinking, managed trade, and attendant protectionism. These would make a mockery of today's free trade and free capital flow pretensions, and set the stage for financial instability and global economic enfeeblement.

Capital freedom's uses, abuses, and lessons

Financial markets embrace a "one-world" concept that takes the beneficence of international capital flows for granted. The general case for capital freedom is straightforward. It respects the principle that freedom of choice should not be arbitrarily constrained by historically determined, but economically extraneous, national borders. It permits capital to flow to areas and uses that offer highest prospective return to the investor or that diversify risks; overall risks may not be diminished but are reallocated in the market to those willing to bear them at least cost, not least through the unbundling of risks provided by today's financial derivatives that would be unworkable absent capital freedom. And international capital freedom is a major force for do-

mestic financial liberalization, whose efficiency benefits almost certainly greatly exceed those arising from international capital flows *per se*.

These points now seem obvious, yet today's liberal regime for capital actually is quite new and sharply at variance with thinking and practice during nearly three decades after World War II. Then, the emphasis was on free trade. Free international capital flows were seen as less beneficial and a likely source of mischief. Indeed, review of the main stages of postwar international financial history makes clear that managing freedom for trade and capital flows simultaneously is no small challenge.

The era of dollar shortage. The designers of the postwar international system judged that the trade protectionism and financial instability of the interwar period were intimately related. Liberalization focused on payments arrangements for trade in goods and services. Europe, Japan, and most other countries severely restricted private cross-border investments. The major exception was the absence of external controls in the United States, which at the time possessed most of the free world's financial wealth and gold reserves. To support its geopolitical goals, and for commercial and altruistic reasons too, the United States underwrote reconstruction by exporting capital, mainly to Europe. The U.S. government effort was embodied in the Marshall Plan. And U.S. corporations complemented the reconstruction drive by large-scale direct investment; this brought up-to-date technology and management practices in its train and provided models for European firms to emulate.

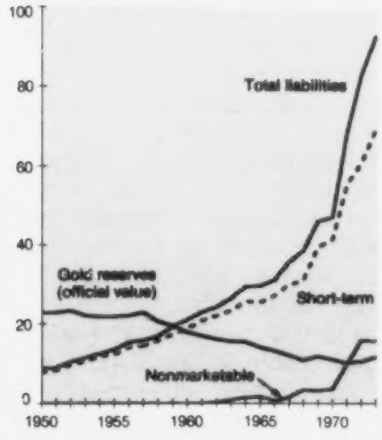
The partnership of official and private U.S. investment was enormously effective in seeding Europe's recovery. By 1958 most of Europe was able to adopt multilateral currency convertibility for traded goods and services. Two years earlier, the Treaty of Rome launched the economic integration of the original six members of the European Community (EC), mainly freeing trade rather than capital. By and large, EC investment flourished during the 1950s and 1960s. Now, having overcome the vicissitudes of the 1970s and early 1980s, the EC is forging ahead with its "1992" single market project on the way to EMU. Western Europe's success has spurred German unification, the demise of Communism, and the rise of free-market thinking across the erstwhile Eastern bloc. Thus the ultimate dividends from U.S. postwar investment indeed have proved handsome.

The twilight of Bretton Woods. By the end of the 1950s, the climate changed as U.S. gold reserves increasingly fell below U.S. liabilities abroad (see Chart 4). U.S. trade and current account surpluses continued, but were declining and insufficient to cover capital outflows. Thus, some Europeans complained that U.S. investment was being financed with Europe's own money. Moreover, U.S. ability to convert foreign official dollar holdings into gold came into question.

During the 1960s, U.S. policymakers took a number of measures to shore up the dollar's position, mainly seeking to restrain capital outflows without impeding trade. U.S. corporations were limited in financing direct investment abroad from U.S. sources. The Voluntary Foreign Credit Restraint program cur-

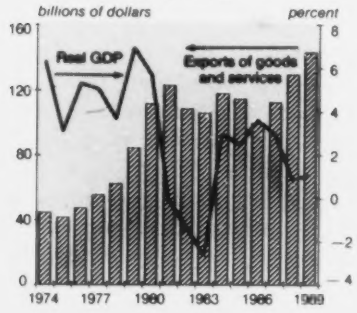
Chart 4

U.S. gold reserves and foreign liabilities



*Ten LDC debtors under two oil shocks **

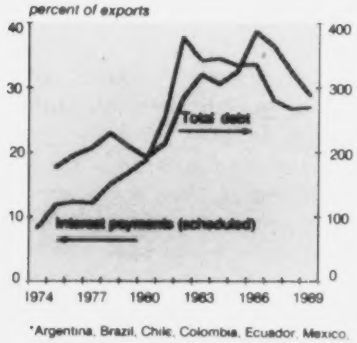
Economic performance



External financing demand

External financing supply

Debt burden



*Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Philippines, Uruguay, and Venezuela

tailed U.S. bank lending. And, to lessen short-term official outflows, foreign monetary authorities were jawboned and offered inducements not to convert their dollar holdings.***

These measures, however, addressed symptoms rather than causes. The root cause of dollar weakness lay in inflationary U.S. policies. U.S. consumer prices, which had risen just 1.2% annually in the first half of the 1960s, rose 4.3% on average in the second. The Johnson Administration hoped vainly that economic growth would suffice to finance both the Vietnam war and "Great Society" spending with no increase in taxes; at the same time, the Federal Reserve would not take the heat for monetary stringency. U.S. inflation and excess demand later led to the 1971 lapse of U.S. trade into deficit. With continuing capital outflows and gold losses, this prompted President Nixon's suspension of dollar convertibility that August. Thus the Bretton Woods "gold-exchange" system sacrificed free capital flow for the sake of free trade, yet was doomed by U.S. unwillingness to adjust or be prisoner of the inflation sensitivity of foreigners; confidence could not survive price instability and neglect of imbalances.

Floating through the first oil shock. A new era began in January 1974, when U.S. capital controls were lifted following the first OPEC oil shock and the 1971-73 switch to floating exchange rates for the dollar.**** Quadrupled oil prices hit importing nations hard, particularly Europe, Japan, and many LDCs. Flexible exchange rates absorbed strains that might otherwise have provoked widespread currency crises. Still, innovative financing was needed to see the deficit countries through what was expected to be a difficult and extended adjustment, given the low short-term elasticity of oil demand.

It was quickly realized that financing could best be mobilized through a blend of official and private channels complemented by policy adjustment in both surplus and deficit countries. Thus were born the IMF's oil facilities, heavily funded by Saudi Arabia and benefiting Britain, Italy, and many LDCs. Otherwise, OPEC countries in surplus placed the bulk of their fast-rising assets with the international commercial banks. In turn, because the oil shock had thrown the world economy into recession and slashed corporate credit demands, the banks saw sovereign borrowers, including middle-income LDCs, as attractive takers for syndicated credits funded by OPEC deposits.

As things turned out, economic adjustment to the first oil shock proceeded swiftly (see Chart 5). Demand for oil fell away and new supply came forward from non-

**Capital flight can be estimated indirectly on a year-by-year reckoning as the current account balance *plus* net direct investment inflows, *plus* the valuation-adjusted increase in the stock of external debt, *minus* the increase in external official and banking system assets, *minus* the increase in the volume of official gold holdings multiplied by the average London gold price. The methodology, advantages, and shortcomings of this procedure were discussed in "LDC capital flight," *World Financial Markets*, March 1986.

***These capital outflow controls had one beneficial, albeit unintended, consequence. They were a shot in the arm for the nascent Eurocurrency banking and bond markets. Lightly regulated, the Euromarkets soon developed a depth, breadth, and efficiency that highlighted the inefficiencies of a segmented and controlled global financial system.

****Die-hard defenders of the defunct Bretton Woods system attributed the oil shock to the switch of currency regime.

OPEC sources. OPEC nations — notably, those dubbed "low absorbers" — soon spent their way out of surpluses as they explored their appetites for consumption and investment. The industrial countries returned to reasonable economic growth fairly quickly, albeit with unemployment lingering high. And many oil-importing LDCs gained from recovering commodity prices or their competitiveness in labor-intensive manufactures.

Amazingly, capital broadened its international horizons without precipitating trade restrictions. Indeed, in 1978, the Tokyo round of trade negotiations reached a modestly satisfactory conclusion. The overall success flowed from a good mix of adequate adjustment and complementary financing. The financing relied on effective international cooperation between oil exporters and importers tapping the Bretton Woods institutions, other official agencies, and the international commercial banks. The cooperation was forthcoming, made easier as confidence climbed that adjustment was working.

The catastrophe of the second oil shock. Confidence at first swelled to hubris in the aftermath of the second OPEC oil shock. The previously balanced approach to international adjustment gave way to complacency and excess, such that the 1978-82 period must be rated the dismal years of postwar international finance.

The major mistakes were twofold. First, after 1976 the United States was too eager to recapture pre-1974 growth of output and employment. The Federal Reserve underestimated the virulence of gathering inflation pressures. It was too gradualist in hiking interest rates, as was signaled by the October 1978 dollar crisis. Further, at the Bonn summit that year, the Carter administration pushed for faster economic growth in all the major industrial countries. In light of the unexpected new oil shock that followed shortly thereafter, this coordination effort under U.S. pressure turned out singularly ill timed; distrust of economic policy coordination lingers even today in some quarters.

Second, concerning the LDCs, the second oil shock elicited no broad-scale financing effort through bilateral and multilateral official channels. Industrial-country governments actually encouraged commercial banks to undertake the major recycling function. The banks had had a satisfactory experience with LDC lending in the mid-1970s: after surging for a time from a low base, LDC indebtedness had returned to a growth pace that looked sustainable. The banks, competing for market share and with the acquiescence of their regulators, saw no reason not to repeat a profitable exercise. The banks thought their credits safe as long as they focused on lending to governments and what appeared to be well-managed projects and companies, especially in the public sector.

In retrospect, the banks' confidence proved misplaced. Because money is fungible, state enterprise credits effectively went to finance governments whose macroeconomic policies were gravely flawed. Much of Latin America was in political flux, which rendered firm government impossible. There was little stomach for the painful adjustment that would have been necessary to correct inflation, budget deficits, and trade and current account imbalances. Be-

cause of the political and macroeconomic uncertainties, residents of many countries lacked confidence in their future and sought security for their assets by investing them abroad.

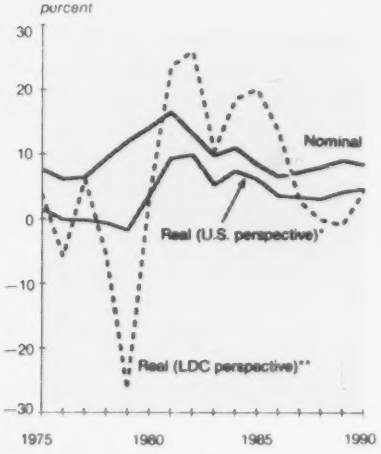
Together, the current account need and capital flight created enormous demand for external finance. Equity and direct investments were largely ruled out as objectionable to nationalist and statist sensitivities. Easier and more palatable for the borrowers was debt finance — not from official sources who might enforce conditionality but rather from the eager banks. Some Latin American borrowers further assumed that maturing loans would always be refinanced and that new loans would cover interest payments.

The music stopped not long after the United States switched to severe monetary stringency. This engendered high real rates of interest on the floating-rate credits that had allowed the banks to transfer interest rate risk to the LDCs. These high rates (see Chart 6) accelerated capital flight and precipitated a global economic recession that devastated the debtors' foreign exchange earnings. Inevitably, explosive growth of LDC financing requirements eventually exhausted the patience of both borrowers and lenders. Confidence collapsed, Latin America's debt bubble burst, and a regime of free private international capital saw *actual* flows fizzle. The dire results still felt today, for both the region and its creditors, are stern warning of the dangers of capital freedom if borrowers and lenders ignore macroeconomic realities or otherwise fail to exercise responsible restraint of risk-taking.

Chart 6

Dollar interest rates

6-month LIBOR annual averages
except 1990, 1st half



*Nominal rate adjusted for U.S. consumer price inflation
**Nominal rate adjusted for LDC export price inflation

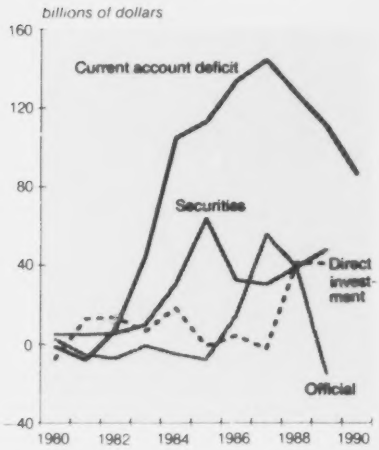
U.S. twin deficits with capital freedom but trade impairment. Besides contributing to Latin America's debacle, U.S. macroeconomic policies at the beginning of the 1980s also were parent to the infamous U.S. twin deficits on the federal budget and foreign trade. Those times marked monetarism's high noon in the thinking of officials and financial markets; both recoiled from the failed gradualism of previous counterinflationary policy, especially in the United States. Then came 1981 and the onset of global recession, exacerbated by U.S. monetary stringency and the surge in real interest rates prompted by the Reagan Administration's well-intentioned fiscal commitments.

Most of the financial community saw higher U.S. military spending along with "supply-side" tax cuts as fiscal laxity. It feared that tight monetary and easy fiscal policies would crowd out investment, keep the economy in recession, and later give way to inflationary monetization of the federal deficit. In the event, no such misfortunes came to pass, thanks mainly to the dismantling of impediments to private international capital flows. Key were Japan's Ministry of Finance decision to lift most controls from the early 1980s plus the 1984 U.S.-led move by several countries to end withholding taxes on some interest payments to foreigners. Crowding-out of the U.S. economy indeed occurred — not of investment or sheltered domestic sectors, however, but rather of foreign trade due to massive net capital inflows.

At first, the inflows were not only attracted by an appreciating dollar, high real U.S. interest rates, and U.S. profit opportuni-

Chart 7

U.S. net capital inflows



ties, but also propelled by lost investment alternatives in Latin America and excess domestic saving in Japan and an overregulated, economically lagging, Europe. Later, after the dollar peaked, central bank intervention in the currency markets sometimes provided a portion of the inflows. Still, the bulk has come from private investors. Rather than being intermediated by banks, much takes the form of portfolio investment or — increasingly in recent years — direct investment by foreign companies building stakes in the U.S. economy (see Chart 7).

Plainly, while allowing the U.S. trade and current account deficits to run even today at about $80 billion annually, these capital inflows have enabled the United States to continue economic growth and pursue a decidedly gradualist approach to trade and budget deficit correction. Some thought the twin deficits would trigger collapse of the dollar and a financial "hard landing." This dire view no longer enjoys much credence. Collapse has not come to pass, even though both deficits by now are long-standing.*

Yet, just as complacency following the first oil shock proved unjustified, so too is complacency foolhardy today. The world economy may have suffered excess saving relative to investment opportunities during much of the 1980s; and the risk-reward characteristics of investment may still be perceived as more attractive in the U.S. economy than elsewhere. But neither condition can be extrapolated forever. U.S. inflation remains stubborn and the economy soft, whereas most other industrial economies now operate at fairly full capacity. New demands are coming along from Eastern Europe and, to a modest extent, Latin America to which some flight capital is returning. Amid these rival claims on foreign saving, financing of the U.S. twin deficits could grow steadily more costly.

Another difficulty is that tolerance by investors of the U.S. external deficit is less than gladly shared by the U.S. Congress and electorate. True, deficit financing by portfolio investment and bank money is barely noticed, or else is welcomed as unconditional financing of domestic demand — not unlike Latin America's attitude toward bank financing ten years ago. But opposition to foreign direct investment appears on the rise, compounded by unease concerning the competitiveness of U.S. corporations. Moreover, the trade deficit has been a principal force behind the 1988 Omnibus Trade Act and the growth of U.S. protectionism. The Act authorized the Administration to pursue multilateral trade liberalization in the current "Uruguay round." But, in addition, it streamlined unilateral import protection procedures and endorsed aggressive bilateralism to open markets abroad, including through the notorious "Super 301" clause. This bilateralism has been seen again in the U.S.-Canadian free trade area, the

*Even when the domestic economy booms and the U.S. trade deficit widens, increasing domestic profits and interest rates may pull in enough investment from abroad to avert downward pressure on the dollar. In addition, in the absence of capital controls, foreign dollar holdings can accumulate without necessarily generating pressures for adjustment, except perhaps through wealth effects. Financial assets in foreign cross-border portfolios worldwide amount to a total of some $4.6 trillion and have grown some 16% annually since 1982, thanks in part to dollar depreciation; if the dollar now holds steady in foreign exchange value and also steady at around one half of foreign holdings, the overall portfolio growth creates a demand for $230 billion annually of additional dollar assets

talk of a U.S.-Mexican arrangement, and the Bush Administration's Structural Impediments Initiative vis-à-vis Japan. Conceivably, U.S. bilateralism may advance the cause of multilateral free trade; but, if copied by others, it more likely will end in recrimination, retaliation, and escalating protection.

This extended tour of postwar financial history provides a number of lessons. First, when well applied, private international capital flows can richly reward both investor and recipient. Second, particularly in the case of bank and portfolio flows, the reward can turn to ashes. This will be the case if the *investor* throws prudence to the winds or the *recipient* — whether an LDC or the United States — takes the availability of international capital as a pretext to avoid stabilization and adjustment. Domestic and external adjustment cannot be avoided, but only postponed. If postponed too long, the adjustment can be abrupt, wrenching, and protracted: for the debtor, bringing loss of access to credit, inflationary depreciation, and economic slump; for the investor, leaving uncollectable claims and collapsed asset values.

Third, there is a certain tension in maintaining both free capital and free trade. The difficulty of repressing capital flows makes for a tendency to compensate ill effects by giving ground on free trade. To keep the tension at bay, the financial system requires incentives for investor prudence, along with penalties for the lack thereof; and governments must correct excessive trade imbalances promptly by a blend of financing and resolute adjustment credible to the international community. The challenge is not new but is nonetheless formidable.

Misguided currency coordination

It is widely held that free trade, free capital movement, and the general interests of business are best served by active management of the currency markets to stabilize exchange rates. Such management indeed makes sense for some countries. But for the G-3 it is a dangerous diversion.

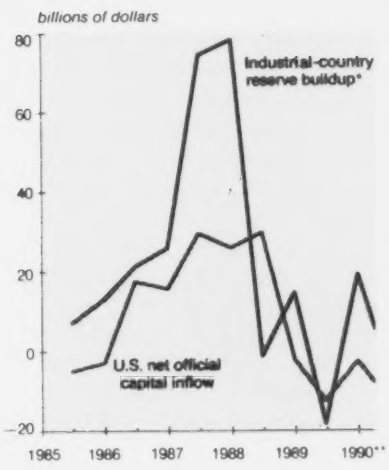
Small open economies often do best by giving up discretionary monetary policy in favor of a fixed exchange rate relationship with a principal trade partner. Many still peg to the dollar or the French franc. Obviously, pegging achieves price stability only if the partner keeps its own inflation low — hence the gravitation of EMS participants toward the mark, whose discipline is more palatable now that all are committed to European unity.

No comparable political compact binds the United States, Japan, and the EMS block. These three areas best find price stability not by fixing exchange rates but rather by resolute monetary policies that are largely domestically oriented. If their separate policies are so geared, major exchange rate shifts should not be necessary to offset residual inflation disparities but remain available as a least-cost instrument for balance of payments adjustment when needed in response to shocks, structural change, and policy failures.

Of course, the G-3 central banks cannot ignore exchange market developments. After all, monetary policy makes much of its impact through the exchange rate channel rather than the sectors traditionally sensitive to interest rates. Moreover, even for the United States and Japan, ex-

Chart 8

Dollar support



*Increase in foreign exchange reserves of industrial countries excluding United States

**Latest plot 1990 Q1

change rate shifts affect an increasing share of overall economic activity. Further, major currency fluctuations typically signal problems elsewhere in the financial or economic system. Unfortunately, the authorities frequently find it convenient to stifle these signals rather than tackle the underlying problems. This is the danger inherent in suggestions that the G-3 should focus on guiding the key exchange rates within target zones.

The Louvre accord of February 1987 fell into this trap. The G-3 policymakers at the time resorted to currency-market intervention on a grand scale (see Chart 8) to back up their judgment that the dollar had reached a level consistent with "fundamentals." In fact, the fundamentals themselves were flawed. Even now, more than three years later, the United States has not delivered on its Louvre commitment to curb the federal budget deficit. Nor does Japan's coupling of fiscal stringency with monetary laxity constitute a prudent policy mix for adjustment and stability.

Altogether, by relying on financing as a substitute for adjustment, and by inviting monetary manipulation of the exchange markets, the currency emphasis of the Louvre accord was misplaced. Nor is it yet entirely gone. Last year, the G-3 warned repeatedly of the dangers of dollar strength, and this year those of yen weakness. Exchange rates, however, cannot be decreed at policymakers' whim. At best they can only be influenced through fundamental policy changes.

Much the same error is made by those who believe that controls on international capital flows would quell currency unrest. Such controls would at best address symptoms of problems, not underlying causes. More likely, they would be ineffective. The 1960's U.S. "interest equalization tax" (IET) and capital outflow controls failed to shield the dollar from inflationary U.S. policies. New restrictions, whether as an IET reborn or some kind of transactions tax, would fare no better. Nor is there much to be said for the many restrictions that hamstring foreign investment by insurance companies and pension funds in most jurisdictions. These may curb activities yet neither stabilize markets nor protect investors. Nor again would penalties on short-term in-and-out transactions necessarily nudge investors into decisions congenial to policymakers. Besides, circumvention develops as sophisticated investors switch activities to channels beyond reach of restrictions. Plainly, controls on international capital flows are not the answer.

The central commitment: price stability

Recalling the U.S. policy U-turns of ten years ago, and their disastrous interaction with Latin America's excesses, the first requirement for a successful marriage of free trade and free international capital movement is a high degree of financial stability in the leading economies. Governments must realize that free capital movement multiplies the financial risks and economic costs borne by all when any one of their number pursues ill-considered policies. But, by assuring that resources go to optimal use, capital freedom also multiplies the rewards of policies geared unswervingly to growth

Chart 9

U.S. prices and wages

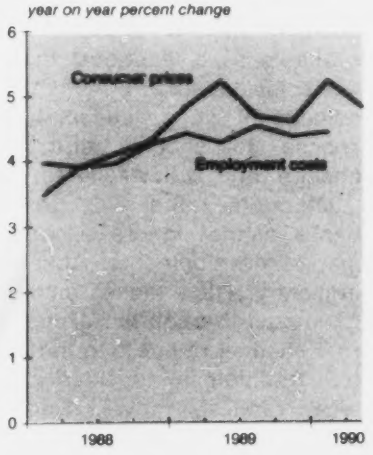
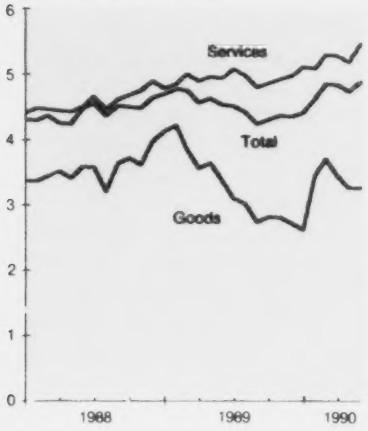


Chart 10

U.S. core inflation

consumer prices excluding food and energy
year on year percent change



with stability.

Trouble is certain if commitment to domestic price discipline comes into question. Among the key countries, Germany's record over the past thirty years manifests convincing commitment, notwithstanding the alarms rung this year at the costs of the East's reconstruction. Japan's record was good during the 1980s, although there are well-founded concerns over asset price inflation and continuing fast money supply growth. By contrast, in the United States, price stability moves in and out of fashion. Its priority has eroded since the Volcker years, whether judged by the up-creep of inflation, especially of labor costs (see Chart 9), or by waning political concern. Surely, it is a sad commentary on U.S. commitment that a Congressional resolution would seek to decree an end to inflation within five years. So distant a target is inadequately demanding of action now. Halving the present 4½% underlying inflation rate within two or three years would be a more concrete aim — and reasonable too, since it need pose no major threat to full employment.*

In every country, the primary burden of inflation control falls on monetary policy. With the United States and Germany as principal exceptions, central banks execute, but Treasuries determine, monetary policy. This works well if the Treasury is fully committed to price stability — as seems true of France today, if not in earlier times — but not if the commitment gets swamped by rival demands. Ideally, perhaps, the central bank should be "independent" — responsible for monetary policy with the single goal of price stability apart from supervisory functions. Of course, accountability provisions limit independence. They could subvert it, to judge from the recurring debate on the Federal Reserve, and are a major issue for the "Eurofed" planned for the monetary union of Europe. Recognizing that no central bank stands wholly free, financial markets worry more when political control jeopardizes price stability. In the end, what counts is not the independence of the central bank *per se* but the rigor of commitment to price stability on the part of all arms of government, including state and local authorities.

Nowhere is this more apparent than in the services sector, where price stability is elusive both in the United States (see Chart 10 and Table 1) and elsewhere. Ranging from babysitting and lawn-mowing through transportation to medical care and

Table 1

U.S. service sector prices

consumer price indices, percent changes at seasonally adjusted annual rates

	1987Q4-1988Q4	*1988Q4-1989Q4*	*1989Q4-1990 June*
All goods and services	4.2	4.6	5.9
excluding food and energy	4.6	4.4	5.3
Selected services			
Homeowner costs	4.7	5.0	5.9
Rents	3.8	4.2	4.2
House maintenance	1.3	3.0	5.5
Hotels	5.2	5.0	7.3
Non-auto transportation	7.8	5.2	4.6
Medical	6.8	8.4	9.1
Entertainment	4.4	5.2	4.4

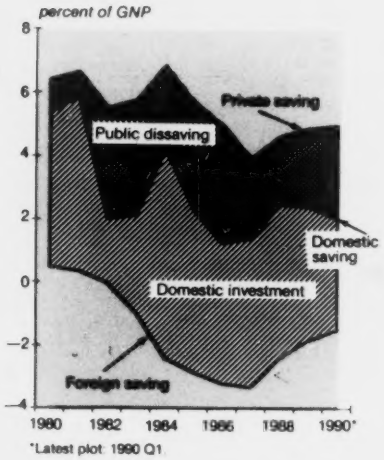
*Federal Reserve Chairman Greenspan would like to see U.S. inflation low enough not to be a factor in business decisions. In principle, high, but stable, inflation may be livable, were it anticipated and the tax code corrected. In practice, even the current pace of *average* inflation makes for unpredictable *relative* prices that damage saving, investment, resource allocation, and economic growth. A literal end to inflation on average, however, would entail absolute declines in many prices, which may be achievable for goods traded in competitive markets, but is too much to hope of administered prices.

funerals, many services face no international competition; are sheltered by barriers to trade across borders and by low mobility of labor even within borders, notably within Europe; or else are protected by regulation — often, but not always, for valid policy reasons.

There has to be greater awareness that government regulation typically loads costs onto the private sector. Cost/benefit review can be particularly cavalier in areas of widening popular concern, such as the environment. The benefits of removing or revamping regulation warrant regular assessment. Up to a point, national governments are responding, but often the real problems lie at state, county, and township levels. Finally, there must be scope to boost services productivity, not least in the United States, by stepping up investment in infrastructure and human capital. Even so, the wage-cost component of most services likely will keep their prices chronically rising relative to those of manufactures. This dims the chances for getting overall inflation down to zero, but should not preclude effective price stability.

Chart 11

U.S. net saving and investment



Coordination and saving for stability and prosperity

The second requirement for harmonious freedom of both international trade and capital flow is G-3 commitment to fiscal adjustment when warranted, superseding the exchange rate management that has been the misguided focus of most G-3 cooperation hitherto.

Over the past twenty years, the major international imbalances have been the product, not of inflation disparities, but of saving and investment shocks. Examples include the OPEC oil shocks of the 1970s, the Reagan fiscal strategy and the collapse of investment in Latin America in the early 1980s, and Europe's investment drive toward 1992. Further shocks lie ahead: for example, with the Cold War over, there loom the transformation of Eastern Europe and, ultimately, of the Soviet Union, plus the revival of Latin America.

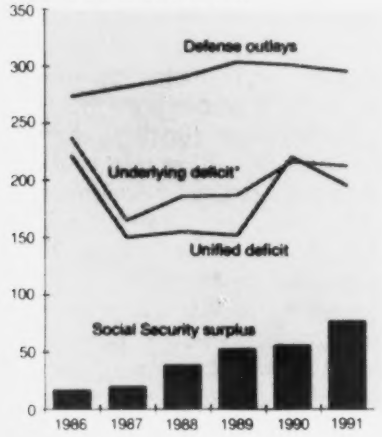
Monetary policy or exchange rate management cannot cope adequately with such shocks. Instead, as U.S. dominance recedes, the sound response lies through fiscal action by the G-3 working together. Granted, fiscal flexibility is hard everywhere and, institutionally, immensely so for the United States. Fiscal coordination also would swell the already large corpus of policymakers at the G-3 conference table. Yet this now is the crucial area for international effort, lest rising global investment drive interest rates still higher.

The first order of business is to clear away the principal unsettled fiscal issue of the 1980s — the U.S. federal deficit opened up by the recession at the start of the decade and the Reagan fiscal program. Though overdone, that program helped propel the U.S. economy into what is, by now, nearly eight years of expansion. The expansion's quality, however, has been marred by inadequate investment and productivity growth, as well as the external deficit — all related to low U.S. saving (see Chart 11). This savings problem has been aggravated by household behavior. Private saving may have risen somewhat since its 1987 nadir, probably reflecting a leveling-off in the wealth-income ratio

Chart 12

U.S. federal budget

billions of dollars, fiscal years



*Unified deficit less FSLIC-related outlays and Social Security surplus.

and a slight pickup in inflation, but neither factor assures a further rise in saving. Nor does the passage of the baby-boom population toward middle age promise much increase in overall personal saving.

The sure way to raise U.S. saving lies through reduced public dissaving (see Chart 12). Despite the rising Social Security surplus, the current trend in the federal deficit is one of renewed deterioration amid a slow economy. The Administration and the Congress are seeking to cut $50-$60 billion from the FY1991 deficit. The key ingredients of a sound compromise would be cuts in military expenditure and middle-class "entitlements"; and higher consumption taxes, given that increases in oil and energy taxes would address conservation and security concerns. The need for action on the energy front is reinforced by the fact that, even as the deficit on non-oil trade shows impressive reduction, U.S. oil import costs are rising fast and this year will contribute some 55% of the overall trade deficit (see Chart 13).

Continued fiscal paralysis would be costly: high interest rates would deter the investment needed to train and equip the U.S. work force for something better than derisory productivity growth; and, far from helping fund the world's new investment opportunities, the U.S. economy would keep draining off $80 billion or more annually from abroad to cover overconsumption at home. Since foreign saving may well be increasingly attracted elsewhere, the danger is that deficit paralysis will eventually bring another stiff rise in U.S. real interest rates. This would leave the economy struggling far below potential growth and susceptible to trade and foreign investment protectionism.

The U.S. saving-investment imbalance is not the only threat to freedom of international trade and capital flow. Japan's current account surplus came down last year to $58 billion, or 2% of GNP. There now is concern, particularly in Japan, that it could slide too far, ostensibly on the grounds that Japan's excess saving adds to a limited pool worldwide.

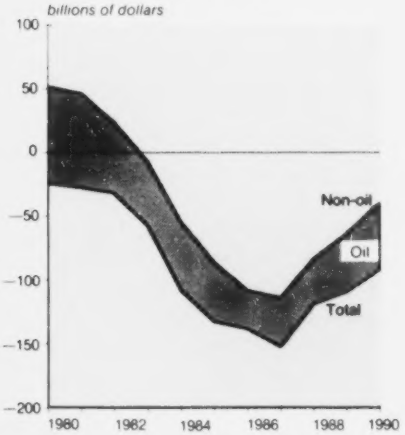
The concern is misdirected. First, unless Japan's government and business continue uncannily successful in managing import growth relative to exports, Japan's surplus will widen anew once the U.S. economy picks up, especially if the yen weakens again under Japan's mix of fiscal surplus and fast money growth; Japan needs to correct this mix even as it works to dismantle its restrictive business practices. Second, if the rationale for a 2%-of-GNP external surplus lies in the investment needs of Eastern Europe and the LDCs, trouble will arise if Japan's capital exports go mainly for asset purchases in North America and Europe. These could stiffen resentment of unbalanced bilateral trade. Worse, reminiscent of recycling after the OPEC oil shocks, U.S. and European investors and intermediaries would wind up carrying a disproportionate share of the risks of investing in the new areas; unlike Saudi Arabia fifteen years ago, Japan today is amply experienced and able to do its part directly.

Europe also has imbalances and attitudes problematic for a liberal world trade and financial order. Britain, Spain, and several smaller countries are in large external deficit, whose main counterpart is West Germany's

Chart 13

U.S. trade balance

billions of dollars



surplus. That surplus should drop as pan-German reconstruction moves into high gear. However, this may burden Germany's EC partners with inflationary pressures and the likely need for tax increases thanks to excess German import demand, possible EMS revaluation of the mark, or both. In effect, by forgoing current consumption, the partners may pick up part of the tab for German unity even as they share in its investment opportunities.

This could complicate Europe's path to economic and monetary union, the goal that largely preoccupies the EC apart from developments to the East. Were EC economic growth in jeopardy or inflation to flare, adjustment costs could escalate and engender actions bringing substance to "Fortress Europe" fears in the world beyond the Community. Relatively liberal attitudes may win out on EC automobile imports and transplant output. But ambivalence lingers on areas such as high technology and broadcasting. And Europe's agriculture protectionism continues dogged; the EC market may open marginally for the products of newly democratizing Eastern Europe, but this will hardly satisfy the United States and others for whom agricultural liberalization is the *sine qua non* of a successful "Uruguay round." EC attitudes are worrisome on investment matters too. They may be liberal on financial institutions and portfolio capital, but are hardly so on "screwdriver" plants and other direct investments seen as circumventing Community trade policy.

The United States, Japan, and Europe should promptly tackle these saving, investment, and structural issues among themselves. If they also commit to monetary discipline, they will be meeting the key requirements to nurture a liberal trade and financial order. This would serve the ultimate goals of market stability and economic prosperity far better than currency manipulation or target zones — current fashions that downplay macroeconomic policy misalignments and make for erratic markets and protectionism toward both trade and capital flows.

Getting to work now on the fundamentals would take best advantage of the global opportunities opening up with the end of the Cold War and the emerging world peace dividend. Though the dividend will not come quickly, and its size remains hostage to security arrangements yet undetermined, the urgency is to ensure that it will not be squandered. The industrial countries no doubt could use the dividend at home. But the new needs of Eastern Europe and — down the road — those of the Soviet Union also loom large. They should not be shrugged off, at least once potential beneficiaries commit to stabilization and structural reforms at home and show capacity to deploy external resources productively.

As their contribution to the redevelopment of the newly democratizing countries, the banks will focus on trade financing and a broad range of advisory work including privatizations and business restructurings. Latin America's experience ten years ago argues that development risks are ill-suited for general-purpose balance of payments financing. Such financing does little to promote economic adjustment. Nor is creditor-imposed conditionality demonstrably effective, even in the case of official financing.

Better for both adjustment and

development would be foreign direct investment. Recognizing the expanding business potential of world economic integration, global corporations set less and less store by national borders. Yet in many host countries, shortsighted and outdated nationalism still obstructs direct investment more than other forms of capital inflow. Fortunately, Eastern Europe's evolving attitudes seem more positive toward direct investment. They recognize the value of the investors' experience, technology, and management know-how — the foundations of a competitive production base for both domestic needs and exports to world markets. The same recognition is beginning to take hold even in Latin America.

Given access, a stable business climate, and globally competitive returns in the host countries, foreign direct investors will step forward. A positive outcome, however, requires stable macropolicies in the major industrial countries too, so that freedom of international capital movement will support, rather than disrupt, free trade and that both will foster financial stability and economic prosperity. These two great freedoms do not themselves come for free.

Statistical appendix

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Editor, D. K. Hargreaves, Vice President
Publications manager, Sorca E. McFadden, Vice President

Effective exchange rates — industrial countries

Index numbers, 1980-82 average=100.

	United States	Canada	Japan	Australia	France	Germany	Italy	United Kingdom	Austria	Belgium	Netherlands	Spain	Switzerland	Denmark	Norway	Sweden
Nominal against 15 other industrial-country currencies																
1985	127.1	92.8	115.9	76.6	85.5	107.8	82.1	88.2	104.2	89.5	104.0	75.5	109.5	95.0	95.6	83.8
1986	106.0	87.6	150.3	61.6	87.4	116.2	82.8	80.7	107.8	92.9	110.4	73.4	118.1	99.7	98.3	81.5
1987	94.1	89.6	164.3	58.3	87.1	122.0	82.2	78.9	110.8	95.6	114.6	73.0	123.0	102.8	85.7	80.0
1988	88.0	95.6	181.4	62.0	85.7	121.8	79.8	83.7	110.2	94.6	114.4	75.5	121.9	101.2	85.6	80.2
1989	91.3	100.5	172.7	65.6	84.9	121.1	80.6	81.3	110.0	94.2	113.6	78.8	115.8	99.0	85.8	81.1
1989																
July	92.0	100.2	170.1	63.1	84.7	120.8	81.2	81.1	109.8	94.2	113.5	78.9	116.8	98.9	85.7	81.3
August	92.5	101.6	170.0	64.2	84.7	120.2	81.5	80.5	109.6	93.9	113.2	78.7	116.3	98.5	85.8	81.5
September	93.8	101.2	166.3	65.8	84.7	120.2	81.3	80.1	109.4	93.9	113.1	78.6	115.9	98.4	85.8	81.7
October	91.8	101.5	167.6	64.9	85.5	122.0	80.6	78.7	110.5	94.5	114.2	78.6	116.1	99.6	85.6	81.3
November	91.4	101.9	165.2	65.6	85.9	122.9	81.0	77.0	111.0	95.2	115.0	79.1	115.6	101.0	85.4	80.7
December	89.7	102.2	162.6	65.0	86.8	125.0	81.1	75.6	111.8	96.3	116.4	79.4	114.9	102.8	85.3	79.6
1990																
January	89.0	100.9	159.5	64.0	87.5	125.4	81.0	76.6	112.3	96.6	116.7	79.4	116.0	103.5	85.4	79.3
February	89.1	98.7	158.3	61.9	87.5	125.1	81.3	78.1	112.1	96.8	116.5	79.6	117.1	103.8	85.4	79.2
March	90.6	100.6	151.4	63.1	87.9	124.9	81.8	75.8	112.1	97.3	116.6	80.1	117.2	104.6	85.3	80.0
April	90.4	101.9	145.7	64.0	88.4	124.9	82.1	75.7	112.2	97.8	116.7	81.1	118.2	105.3	85.2	79.9
May	89.4	100.7	149.0	62.8	88.0	124.7	82.0	76.4	111.8	97.8	116.6	82.3	122.0	105.3	85.2	79.5
June	89.4	100.8	149.3	64.2	87.5	123.9	81.6	78.5	111.4	97.7	115.8	82.9	122.3	104.6	85.3	79.3
Real against 15 other industrial-country currencies																
1985	122.4	96.4	96.9	89.6	100.5	96.7	100.2	92.8	103.3	85.2	96.6	92.4	98.0	101.3	99.7	96.8
1986	102.4	93.6	115.4	79.7	103.5	103.5	102.9	87.4	106.8	84.8	101.3	94.2	106.0	107.8	97.7	96.2
1987	91.8	96.8	119.5	81.9	104.7	106.9	103.8	87.4	106.9	84.7	104.2	96.2	110.1	112.1	100.9	95.7
1988	87.4	104.7	125.8	91.3	102.1	106.2	104.2	94.2	107.6	81.5	100.7	100.8	107.1	112.0	102.0	99.2
1989	91.8	108.2	118.2	98.1	100.1	104.7	107.7	93.6	107.2	80.3	97.5	106.5	100.3	110.4	101.5	104.7
1989																
July	92.3	107.7	117.5	94.2	100.0	104.5	108.7	93.4	108.8	80.4	96.3	106.9	101.0	109.9	101.2	105.0
August	92.8	109.2	117.2	96.2	100.1	103.8	108.8	92.9	108.6	80.2	96.3	106.8	100.5	109.9	100.8	105.7
September	94.1	108.3	114.7	99.3	100.0	103.7	108.7	92.8	106.6	80.0	96.8	106.7	100.4	110.3	101.5	105.8
October	92.7	107.8	114.6	97.8	100.8	105.2	107.7	91.3	107.6	80.4	97.8	106.6	100.8	111.9	101.1	105.2
November	92.2	108.2	113.0	99.6	101.4	105.8	108.3	89.8	108.1	81.0	98.3	107.7	100.2	113.9	100.7	104.9
December	90.6	107.9	111.3	98.5	102.7	107.4	108.4	88.4	109.4	81.7	99.3	108.3	99.3	115.8	100.2	103.9
1990																
January	90.1	106.0	108.7	97.0	103.1	107.6	107.9	90.5	110.1	82.9	98.0	108.9	100.5	115.6	101.4	104.2
February	90.0	104.2	107.4	93.6	102.7	107.5	107.9	92.3	110.3	83.4	98.1	110.0	102.1	116.0	102.2	103.6
March	91.5	105.7	103.2	95.1	103.5	107.1	108.1	89.8	109.9	83.6	98.8	110.6	102.5	117.2	101.8	104.3
April	91.3	106.7	99.5	96.3	103.9	107.1	108.2	90.1	110.0	83.9	99.6	112.4	103.4	117.9	100.4	103.9
May	90.1	105.7	101.1	94.6	103.3	106.8	107.6	91.1	109.4	84.5	99.5	114.0	107.0	118.4	101.7	103.8
June	90.0	105.8	101.5	96.7	102.8	106.3	106.8	93.5	109.6	83.9	99.2	115.0	107.1	117.2	102.0	103.3
Real against 18 other industrial-country and 22 LDC currencies																
1985	124.2	99.2	102.0	90.2	100.0	95.8	99.8	92.4	102.9	84.5	94.8	93.1	97.8	101.3	100.0	96.7
1986	108.1	94.8	120.2	81.6	104.2	104.7	104.4	88.3	107.8	85.4	101.3	96.8	107.9	108.4	98.5	97.0
1987	98.1	97.1	123.4	83.4	106.0	109.4	106.5	89.2	110.6	85.9	105.3	99.8	113.1	113.1	102.0	97.1
1988	92.8	104.4	129.0	92.5	102.8	107.6	106.1	95.6	108.8	82.3	101.1	103.7	109.2	112.8	103.0	100.2
1989	96.8	108.3	121.7	98.8	100.4	105.2	109.0	94.2	107.9	80.4	97.1	109.3	101.8	110.8	102.1	104.8
1989																
July	97.4	107.9	121.0	95.1	100.3	105.1	110.1	94.1	109.5	80.6	96.0	109.8	102.6	110.4	101.8	105.1
August	97.8	109.4	120.7	96.6	100.3	104.2	110.0	93.1	109.2	80.3	95.8	109.5	102.0	110.3	101.4	105.7
September	98.6	108.6	118.2	99.5	100.1	103.9	109.7	93.2	107.1	80.0	96.2	109.2	101.7	110.7	102.0	105.7
October	97.5	108.0	117.9	98.3	101.0	105.7	109.0	91.9	108.2	80.7	97.5	109.3	102.4	112.2	101.5	105.2
November	96.8	108.2	116.0	99.9	101.7	106.4	109.7	90.3	108.8	81.3	98.1	110.5	101.9	114.3	101.2	104.9
December	95.5	107.9	114.0	99.0	103.3	108.6	110.3	89.1	110.3	82.2	99.6	111.6	101.4	116.3	100.7	104.0
1990																
January	94.8	105.8	110.9	97.6	103.7	109.0	110.0	91.3	111.2	83.5	98.5	112.2	102.6	116.2	101.9	104.5
February	94.6	104.0	109.5	94.4	103.5	109.0	110.1	93.3	111.5	84.1	98.8	113.5	104.2	116.7	102.7	104.0
March	95.4	105.5	104.9	95.5	104.1	108.5	110.0	90.6	111.1	84.3	99.3	113.6	104.5	117.8	102.2	104.5
April	95.6	106.7	101.3	96.8	104.9	108.8	110.5	91.1	111.3	84.8	100.4	115.8	105.6	118.5	100.8	104.2
May	94.6	105.6	102.8	95.3	104.3	108.7	110.0	92.4	110.8	85.4	100.4	117.4	109.4	119.1	102.2	104.3
June	93.7	105.4	102.6	97.1	103.4	107.6	108.6	94.5	110.7	84.7	99.8	117.5	108.9	117.8	102.3	103.5

Real effective exchange rates — developing countries

Index numbers, 1980-82 average=100.

	Argentina	Brazil	Chile	Colombia	Mexico	Peru	Venezuela	Hong Kong	Indonesia	Korea	Malaysia	Philippines	Singapore	Taiwan	Israel	Turkey
1985	71.0	85.2	79.6	86.1	87.4	96.8	93.0	103.6	94.7	89.4	116.3	114.7	95.7	94.2	106.6	89.8
1986	61.0	74.8	68.8	68.0	62.8	97.2	90.7	93.9	53.6	76.4	95.4	90.9	80.9	86.3	101.0	71.6
1987	53.7	74.2	65.6	63.6	64.6	109.0	65.2	89.9	56.1	75.6	89.5	87.7	74.5	91.7	97.6	63.5
1988	59.8	81.3	60.6	61.4	76.8	130.2	72.0	90.6	54.0	82.3	80.4	89.5	73.2	95.2	107.1	64.8
1989	51.7	99.1	62.2	60.7	73.7	140.2	63.2	98.8	55.7	92.3	79.9	95.6	78.1	100.6	109.3	73.5
1989																
July	49.4	93.6	61.6	61.3	73.4	118.7	63.6	98.3	56.0	93.3	81.7	93.8	78.4	102.3	107.6	77.1
August	48.6	103.0	61.4	61.5	72.8	121.4	62.7	98.7	56.8	93.7	82.2	96.6	78.5	103.0	108.8	78.1
September	49.3	112.8	61.6	61.0	72.6	130.0	62.3	101.2	57.4	94.6	82.1	99.2	78.5	103.2	109.5	78.5
October	48.8	114.4	60.9	59.6	71.7	143.0	58.6	100.5	56.3	92.9	80.7	100.8	77.8	101.0	108.5	76.7
November	49.2	119.4	59.7	58.9	71.1	168.2	54.3	102.1	56.4	92.5	80.2	98.5	79.0	99.4	108.7	77.1
December	41.6	118.0	58.9	57.3	70.0	203.8	53.2	101.0	56.7	90.9	78.8	97.0	78.2	97.8	108.1	77.4
1990																
January	44.5	128.7	57.4	57.1	69.1	221.4	53.6	97.5	55.6	88.7	78.0	93.6	79.2	97.1	106.8	77.7
February	39.5	131.0	59.1	57.0	68.5	231.0	54.9	97.4	55.9	87.6	77.6	92.0	80.4	96.4	106.1	77.2
March	50.9	149.3	57.8	57.0	68.6	227.7	55.7	100.1	56.6	88.0	78.5	92.7	80.6	96.3	105.0	78.5
April	52.5	131.2	59.2	56.5	68.8	225.5	53.7	100.9	57.4	87.9	78.2	92.0	80.9	96.0	106.7	78.0
May	57.1	125.2	58.8	55.2	68.2	207.0	52.4	101.5	58.7	87.3	78.0	91.9	81.2	91.6	106.0	76.0
June	79.3	168.4	56.5	54.3	67.3	196.8	50.7	101.1	57.0	85.7	77.7	92.7	81.0	89.7	104.4	77.2

J.P. Morgan Government Bond Index

Index of total return for traded bonds, December 31, 1987=100
end of month

	1988	1989	1989				1990						
	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul 18
In local currencies													
Australia	109.77	124.83	116.76	118.57	122.28	124.83	127.16	125.88	126.69	126.49	129.15	131.14	133.12
Belgium	108.72	110.91	113.05	112.08	110.85	110.91	109.44	108.64	112.99	113.00	115.22	116.35	118.11
Canada	109.08	122.99	118.98	121.87	121.22	122.99	122.02	118.30	116.57	115.13	120.31	122.21	122.80
France	116.24	121.06	121.63	121.55	121.26	121.06	120.33	119.20	122.71	123.66	124.47	125.68	126.88
Germany	105.23	106.26	106.50	106.23	105.28	106.26	104.33	100.99	102.78	101.87	103.05	104.16	105.89
Italy	111.62	125.01	121.59	122.37	123.26	125.01	126.17	127.34	129.14	131.21	134.11	135.80	136.50
Japan	105.89	104.30	106.09	104.88	104.80	104.30	100.44	99.59	98.34	99.27	102.10	100.99	101.41
Netherlands	106.02	105.84	106.44	106.30	105.43	105.84	104.64	102.59	104.02	103.66	104.75	105.87	107.40
Spain	109.76	119.82	118.47	119.25	119.66	119.82	122.24	122.40	123.77	125.61	127.21	128.66	129.56
United Kingdom	106.74	115.29	112.19	113.52	112.75	115.29	112.58	110.90	108.42	106.24	112.53	116.26	116.25
United States	106.78	121.70	117.36	120.32	121.45	121.70	120.06	120.32	120.33	119.34	122.49	124.35	124.61
In dollars													
Australia	129.84	136.50	125.63	128.58	132.78	136.50	135.54	132.35	132.41	131.41	137.39	143.96	145.52
Belgium	96.23	102.74	94.52	95.61	97.64	102.74	102.36	101.45	105.96	107.43	109.03	112.24	114.79
Canada	118.89	138.06	131.34	134.92	135.40	138.06	133.65	128.91	129.46	128.42	133.34	136.34	138.32
France	102.22	111.33	101.81	103.65	106.03	111.33	111.69	109.97	114.60	116.65	115.65	119.60	122.01
Germany	93.36	98.56	89.21	90.68	92.74	98.56	97.11	92.92	95.34	95.11	95.32	98.26	100.80
Italy	96.97	114.27	103.15	105.14	108.79	114.27	116.73	117.20	120.10	123.54	124.88	128.88	131.10
Japan	102.63	87.70	92.20	89.03	88.74	87.70	84.17	80.88	75.35	75.53	81.21	80.27	83.10
Netherlands	93.65	97.90	88.88	90.45	92.66	97.90	97.16	94.33	96.37	96.81	96.82	99.83	102.02
Spain	103.93	117.52	106.86	109.79	111.57	117.52	120.50	120.78	122.06	127.15	129.99	134.89	138.50
United Kingdom	102.47	98.66	96.13	95.10	93.83	98.66	100.27	98.96	94.74	92.26	100.21	107.75	111.94
United States	106.78	121.70	117.36	120.32	121.45	121.70	120.06	120.32	120.33	119.34	122.49	124.35	124.61
Global	104.99	112.14	108.47	109.87	110.85	112.14	110.47	109.28	108.61	108.19	111.65	113.67	115.15
Global excluding United States	101.79	99.25	96.48	95.98	96.76	99.25	97.57	94.79	93.35	93.57	97.29	99.40	102.15

Government bond yields

by maturity sectors in years, for traded bonds included in the J.P. Morgan Government Bond Index
in percent per annum (semiannual basis), at end of month

	1988	1989	1989				1990						
	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul 18
Australia													
1-3	13.78	14.30	15.48	15.49	14.73	14.30	13.61	14.23	14.22	14.42	14.15	14.05	13.75
3-5	13.71	13.57	14.82	14.68	13.99	13.57	13.22	13.86	13.92	14.26	13.96	13.79	13.52
5-7	13.34	13.39	14.38	14.28	13.74	13.39	13.19	13.73	13.83	14.21	13.95	13.81	13.55
7-10	13.08	13.01	13.91	13.79	13.28	13.01	12.89	13.41	13.59	13.91	13.63	13.52	13.31
10+	13.00	12.87	13.65	13.50	13.00	12.87	12.75	13.27	13.44	13.79	13.55	13.39	13.18
Belgium													
<5	7.82	9.74	8.62	9.08	9.69	9.74	10.28	10.55	9.78	9.94	9.62	9.56	9.32
5+	8.00	9.44	8.42	8.80	9.23	9.44	9.98	10.41	9.66	9.85	9.59	9.53	9.30
Canada													
1-3	10.60	10.64	10.34	10.07	10.69	10.64	10.58	11.99	12.48	12.79	12.13	11.79	11.66
3-5	10.38	10.05	10.10	9.91	10.26	10.05	10.21	11.39	11.89	12.40	11.60	11.35	11.20
5-7	10.24	9.76	9.95	9.64	9.92	9.76	10.03	11.00	11.60	12.18	11.37	11.14	11.08
7-10	10.22	9.65	9.83	9.55	9.79	9.65	10.00	10.77	11.30	11.76	11.02	10.86	10.84
10+	10.21	9.51	9.78	9.40	9.61	9.51	9.89	10.49	10.98	11.45	10.68	10.61	10.69
France													
1-3	8.16	10.01	8.94	9.39	9.52	10.01	10.18	10.32	9.93	9.60	9.69	9.62	9.50
3-5	8.32	9.65	8.88	9.20	9.32	9.65	9.93	10.21	9.78	9.61	9.66	9.59	9.48
5-7	8.26	9.32	8.75	8.99	9.13	9.32	9.62	10.00	9.51	9.45	9.50	9.47	9.34
7-10	8.38	9.12	8.64	8.75	8.98	9.12	9.44	9.86	9.37	9.42	9.42	9.38	9.28
10+	8.57	9.14	8.76	8.82	9.03	9.14	9.42	9.81	9.40	9.51	9.56	9.51	9.39
Germany													
<5	5.87	7.57	7.15	7.40	7.66	7.57	8.01	8.74	8.60	8.87	8.76	8.63	8.43
5-7	6.21	7.48	7.07	7.27	7.61	7.48	7.99	8.75	8.62	8.89	8.82	8.71	8.47
7+	6.44	7.33	6.95	7.09	7.39	7.33	7.81	8.67	8.40	8.77	8.70	8.61	8.30
Italy													
1-3	11.40	13.53	13.42	13.60	13.69	13.53	13.63	13.72	13.52	13.35	12.79	12.65	12.70
3+	12.74	13.78	13.37	13.66	13.90	13.78	13.89	13.89	13.79	13.48	13.01	12.90	13.06
Japan													
1-3	3.88	6.04	5.23	5.64	5.91	6.04	6.61	6.87	7.24	7.04	6.59	6.89	7.00
3-5	3.94	5.95	5.15	5.55	5.82	5.95	6.51	6.72	7.07	6.93	6.46	6.80	6.79
5-7	4.04	5.75	4.99	5.33	5.49	5.75	6.48	6.68	7.15	7.04	6.53	6.86	6.87
7-10	4.62	5.56	5.06	5.33	5.39	5.56	6.46	6.76	7.02	7.02	6.60	6.88	6.82
10+	4.94	5.54	5.12	5.33	5.39	5.54	6.25	6.33	6.76	6.72	6.35	6.61	6.65
Netherlands													
1-3	5.99	8.42	7.45	7.79	8.19	8.42	8.54	9.26	8.94	9.06	8.88	8.81	8.63
3-5	6.07	7.91	7.34	7.53	7.88	7.91	8.31	8.95	8.78	8.94	8.84	8.77	8.52
5-7	6.13	7.84	7.27	7.42	7.78	7.84	8.24	8.86	8.66	8.86	8.81	8.72	8.52
7+	6.34	7.71	7.20	7.36	7.66	7.71	8.15	8.70	8.58	8.81	8.78	8.69	8.47
Spain													
1-3	12.78	14.46	13.47	13.63	13.92	14.46	13.97	14.39	14.43	14.26	14.23	14.16	14.05
3+	11.79	13.77	12.93	13.32	13.32	13.77	13.47	13.97	14.04	13.99	13.93	13.92	13.97
United Kingdom													
1-3	11.32	12.38	12.42	11.98	12.52	12.38	12.83	13.30	13.94	14.37	13.17	12.75	12.74
3-5	10.72	11.24	11.34	11.11	11.52	11.24	11.92	12.37	13.09	13.65	12.43	11.98	12.08
5-7	10.58	11.06	11.12	10.97	11.34	11.06	11.71	12.13	12.71	13.36	12.21	11.76	11.88
7-10	10.23	10.59	10.64	10.58	10.88	10.59	11.28	11.76	12.46	13.14	12.12	11.62	11.75
10+	9.79	10.17	10.15	10.15	10.43	10.17	10.79	11.26	11.94	12.53	11.66	11.19	11.30
United States													
1-3	9.14	7.90	8.46	7.92	7.78	7.90	8.30	8.36	8.61	8.93	8.43	8.23	8.11
3-5	9.15	7.92	8.43	7.91	7.81	7.92	8.39	8.49	8.72	9.06	8.58	8.36	8.30
5-7	9.19	7.98	8.40	7.95	7.84	7.98	8.43	8.54	8.71	9.08	8.63	8.44	8.43
7-10	9.18	7.99	8.37	7.97	7.89	7.99	8.45	8.55	8.70	9.07	8.63	8.46	8.51
10+	9.11	8.08	8.38	8.02	7.99	8.08	8.56	8.66	8.78	9.14	8.71	8.52	8.66

Eurocurrency deposit rates

by country of currency, by maturity in months
prime banks' bid rates, at or near end of month

	Dec	Dec	1989			1990					
	1987	1988	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Australia											
1	10.25	14.63	17.89	17.86	17.38	16.75	15.97	15.25	14.75	14.64	14.88
3	10.81	15.25	18.09	17.75	17.13	16.25	15.75	15.25	14.75	14.73	14.88
6	11.56	15.48	18.09	17.38	16.61	15.83	15.63	15.13	14.92	14.75	14.88
12	12.44	15.56	18.06	17.22	16.22	15.61	15.63	15.25	15.22	15.13	14.95
Belgium											
1	6.75	7.31	9.63	9.81	10.13	10.33	10.44	10.19	9.88	9.75	9.38
3	6.87	7.44	9.63	9.94	10.13	10.56	10.50	10.19	10.13	9.88	9.38
6	6.87	7.50	9.50	9.94	10.13	10.63	10.69	10.19	10.25	10.75	9.38
12	7.00	7.50	9.38	9.94	10.19	10.63	10.81	10.19	10.31	10.75	9.38
Canada											
1	8.00	10.13	12.00	11.88	12.00	12.50	12.31	13.13	13.13	13.38	13.13
3	8.12	10.63	11.75	11.88	12.00	12.19	12.19	13.31	13.44	13.38	13.19
6	8.44	11.00	11.75	11.88	11.88	11.94	11.75	13.31	13.56	13.13	13.19
12	8.87	11.13	11.50	11.75	11.63	11.63	11.63	13.31	13.75	12.88	12.94
France											
1	8.75	8.56	10.19	10.38	11.00	10.50	10.38	10.06	9.56	9.75	9.88
3	9.00	8.63	10.13	10.63	11.19	10.88	10.75	10.31	9.56	9.81	10.00
6	9.25	8.63	10.06	10.63	11.25	11.00	11.00	10.38	9.81	10.00	10.13
12	9.25	8.75	9.94	10.56	11.06	11.13	11.25	10.69	9.94	10.19	10.25
Germany											
1	3.25	5.25	7.94	8.06	8.13	7.88	8.31	7.75	7.94	7.88	8.00
3	3.37	5.31	8.13	8.13	8.19	8.13	8.44	8.06	8.25	8.13	8.19
6	3.50	5.50	8.13	8.19	8.25	8.38	8.81	8.44	8.63	8.38	8.44
12	3.75	5.56	8.00	8.25	8.38	8.56	9.19	8.75	9.06	8.81	8.69
Italy											
1	11.37	11.25	12.13	12.38	12.38	12.50	12.38	11.13	11.25	11.38	10.63
3	11.75	11.63	12.38	12.50	12.50	12.50	12.50	11.75	11.38	11.38	10.88
6	11.87	11.88	12.38	12.50	12.50	12.63	12.75	12.25	11.75	11.50	11.00
12	12.00	12.13	12.50	12.69	13.00	13.13	13.13	12.94	12.50	11.88	11.38
Japan											
1	4.00	4.44	6.19	6.63	6.56	6.63	7.06	7.19	7.13	7.25	7.38
3	4.12	4.56	6.38	6.56	6.75	6.94	7.25	7.31	7.25	7.25	7.44
6	4.12	4.50	6.38	6.56	6.81	7.06	7.38	7.50	7.44	7.31	7.56
12	4.12	4.63	6.38	6.50	6.75	7.13	7.44	7.69	7.50	7.31	7.69
Netherlands											
1	4.50	5.69	8.13	8.19	8.56	8.50	8.69	8.81	8.31	8.00	7.94
3	4.62	5.69	8.13	8.31	8.56	8.69	8.88	8.88	8.56	8.13	8.13
6	4.69	5.75	8.19	8.31	8.56	8.75	9.06	8.88	8.81	8.38	8.38
12	4.81	5.75	8.13	8.31	8.56	8.88	9.25	8.94	9.13	8.69	8.63
Switzerland											
1	2.50	4.63	7.69	7.63	9.25	9.50	9.06	8.88	9.25	8.69	8.94
3	3.00	4.69	7.81	7.81	9.00	9.56	9.19	8.88	9.25	8.69	8.88
6	3.19	4.81	7.81	7.81	8.69	9.50	9.19	8.88	9.25	8.38	8.75
12	3.25	4.81	7.69	7.75	8.50	9.31	9.25	8.88	9.25	8.50	8.31
United Kingdom											
1	8.56	12.88	15.19	15.06	15.00	15.00	15.00	14.94	15.00	15.06	14.88
3	8.81	13.06	15.25	15.13	15.06	15.06	15.06	15.19	15.25	15.13	14.88
6	9.00	13.06	15.13	15.00	14.88	15.00	15.13	15.38	15.50	15.13	14.69
12	9.31	12.81	14.56	14.63	14.56	14.88	15.19	15.50	15.88	15.00	14.56
United States											
1	7.06	9.06	8.63	8.63	8.31	8.19	8.25	8.25	8.38	8.19	8.19
3	7.37	9.19	8.56	8.38	8.25	8.25	8.25	8.38	8.56	8.25	8.25
6	7.50	9.31	8.38	8.19	8.13	8.31	8.31	8.63	8.75	8.38	8.25
12	7.81	9.50	8.31	8.06	8.13	8.56	8.56	8.81	9.13	8.63	8.31
European currency unit											
1	6.62	7.94	10.69	10.81	11.06	10.75	10.69	9.69	10.25	10.06	10.06
3	6.75	8.00	10.69	10.81	11.19	11.00	11.06	10.50	10.56	10.19	10.25
6	6.87	8.13	10.69	10.88	11.31	11.91	11.44	10.50	10.88	10.44	10.44
12	7.00	8.13	10.56	10.75	11.19	11.25	11.63	10.94	11.06	10.63	10.69

World Financial Markets

Published by
Morgan Guaranty Trust Company of New York,
a subsidiary of J.P Morgan & Co. Incorporated
Economic Research
60 Wall Street, New York, NY 10260

Member, Federal Deposit Insurance Corporation. Printed in U.S.A.